K 8
5/1/01

MONTGOMERY WATSON

May 23, 2001

Mr. Eric Runkel
Illinois Environmental Protection Agency
1021 North Grand Avenue
P.O. Box 19276
Springfield, Illinois 62794-9276

Re: February 6, 2001 Response to Comments
Alternative Array Document dated February 2000
Beloit Corporation Superfund Site (RI/FS)

Dear Mr. Runkel:

We have received your letter dated February 6, 2001 that contained comments about the Alternative Array Document dated February 2000 Montgomery Watson prepared for the Beloit Corporation Superfund Site. Our replies to your comments are incorporated into the draft Feasibility Study submitted under separate cover, and are described below.

1. *Section 1.0, page 1-2, paragraph 1: The text should include the date that the final BIRA was approved by the Illinois EPA.*

   Response: Date of BIRA was changed to January 2001.

2. Section 2.3.1, paragraph 1, page 2-3: *The text should read "above" mean sea level.*

   Response: The word "above" was added to appropriate text.

3. *Section 21.3.5.2, paragraph 4, page 2-6: As stated in comments to the RI, E&E disagrees that the capture zone of well EW04 extends almost out to Watts Avenue.*

   Response: Text was revised to the following: " The capture zone of well EW04 extends past well W18 located in the Blackhawk Acres subdivision."

4. *Section 3.1.1, page 3-1: The COPCs discussed in the bullets of this section should be checked against the BIRA, Table 3-1. Metals, pesticides and SVOCs, including phenol, heptachlor, and endrin were included as groundwater COPCs in the risk assessment of the hypothetical residential scenario. This section should be revised to be consistent with the final approval BIRA.*

   Response: Information in this section was updated with the current January 2001 BIRA. Table 3-1 was clarified to indicate detects of chemicals, some of the

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contaminants were detected at levels which would not qualify the contaminant as a COPC.

5. *Section 3.1.1.2, paragraph 4, page 3-3: The text states that the "source" of PCE and 1,1,1-TCA to the private wells is dissipating, while the previous sentence states that the source of VOCs has not been identified. This inconsistency should be corrected.*

Response: This section states that the declining concentrations of VOCs at these wells indicate that the source is dissipating. Given the relatively uniform groundwater flow directions at this site, this is a reasonable conclusion.

6. *Section 3.2.6, paragraph 3: The paragraph does not mention the risks estimated for hypothetical future scenarios. Revise the paragraph to include the estimates of risk to potential future receptors. In addition, subsections should be added to this section to present the results of the potential future scenarios.*

Response: Sections were added to include hypothetical future scenarios. Subsequent sections were also updated with appropriate information from the January 2001 BIRA.

7. *Sections 3.2.6.1 and 3.2.6.3 The cumulative estimates of risk presented in these sections do not match those presented in the January 2001 BIRA. Revise these sections to reflect the risk estimates presented in the January 2001 BIRA.*

Response: Cumulative estimates of risk were updated with the information from the current January 2001 BIRA.

8. *Section 3.2.8: Revise this section to reflect the summary of results and conclusions presented in Section 9.2 of the January 2001 BIRA.*

Response: Section 3.2.8 was revised to reflect the summary of results and conclusions from Section 9.2 of the January 2001 BIRA.

9. *Section 4.1: Revise this section to reflect the summary of results and conclusions presented in Section 9.2 of the January 2001 BIRA.*

Response: Section 4.1 was revised to reflect the summary of results and conclusions from Section 9.2 of the January 2001 BIRA.

10. *Section 4.2, page 4-2: The reference to "TACO" is usually considered a "To be Considered" standard. The standards should be referenced as IAC Part 620.*

Response: The reference was changed to IAC Part 620 as requested.

11. *Section 4.2.2: This section indicates that the groundwater ingestion pathway is the significant pathway of exposure; however, estimated excess cancer risks for inhalation of COPC from groundwater were of a similar magnitude, if not greater, for potential future residential receptors. The remediation action objectives should be discussed in terms of reducing the risks associated with domestic groundwater use in general, not just reducing the risks associated within ingestion of groundwater.*

Response: The remediation action objectives were expanded to include reducing the risks associated with general domestic groundwater use.

12. *Section 4.4.2, page 4-4: Please check the calculation of acreage. If the on-property area is approximately 2,400 ft. x 800 ft., the acreage within the ND contour should be approximately 44 acres. The resulting volume of groundwater would also require revision.*

Response: Calculation of acreage was checked and corrected.

13. *Section 4.4.3, page 4-4: Why is the area of the off-property plume calculated based on the 50 ug/L contour, instead of the ND contour, as was done for the on-property plume? The acreage should be checked along with the volume of groundwater calculation.*

Response: Calculation of acreage for the plume was changed to the ND contour rather than the 50 ug/L contour. Acreage and volume were checked and corrected.

14. *Section 4.5.1, page 4-5: This section (and all ensuing sections) and Table 4-1 and Table 4-2 should make a distinction between the remedial technology types and process options available for the groundwater source area versus the on-property plume. Technologies or processes not viable for remediation of the plume as a whole could be viable for remediation of the source area, which has a significantly smaller volume as presented in Section 4.4.1, and visa versa. This should be clarified.*

Response: The groundwater source area was separated out from the on-site groundwater plume in this section, subsequent sections, and corresponding tables.

15. *Section 4.6.1, page 4-9: Again this section should consider options for remediation of the plume versus options for the source area. For example, the reasons for not carrying forward a slurry wall or cometabolic biodegradation may be different for the plume as a whole, than for remediation of the source area. The extraction options should also keep in mind that extraction from the source area has proven to be difficult, based on the response to pumping at EW01.*

For the options evaluated and retained on page 4-10, it is not clear why a discussion of the ISCA and point-of-entry systems is included under the no-action. Both of these current systems should be discontinued under the no-action option.

It is not clear what is meant by "natural attenuation groundwater monitoring". Other than at the Erection Bay source area, there is no current indication that any biodegradation is occurring within the on-property plume, and Monitored Natural Attenuation is not discussed as a alternative for this plume.

Response: The no-action option was clarified to include the discontinuation of the current ISCA and point-of-entry systems. Natural attenuation does include dilution, dispersion and adsorption, which is occurring. This can be monitored through routine groundwater monitoring.

16. *Section 4.6.2: The passive groundwater treatment through a permeable barrier wall would not be required to fully encompass the off-property plume. For example, a system designed to treat the leading edge of the plume could be applicable.*

A process option that allows for remediation of the off-property plume, such as air stripping of extracted groundwater similar to the ISCA system, should be retained for detailed evaluation.

See comment above the no-action option (see comment #15).

Where is the option for an additional extraction well in the southern Blackhawk Acres Subdivision described?

What is meant by air stripping of extracted groundwater through point-of entry treatment systems? Such a system would not be acceptable.

Point-of-entry carbon systems would not be considered final remedies for impacted residential wells.

Response: Consideration for a passive groundwater barrier treatment of the source area has been included. A process option for extraction and treatment of groundwater from the off-site plume has been included and included in subsequent sections. The air stripping at the point-of-entry option was eliminated from the evaluation. It was clarified that the point-of-entry carbon adsorption system option would be used with other technologies in order to meet the RA objectives only as a precautionary

measure for those wells which have historically been affected by the plume. Additions to the alternatives for the re-drilling of private wells and extension of the extraction well system into the Blackhawk Acres Subdivision have been included for evaluation. These options would only be needed if the concentration of COPCs were to exceed the MCLs in the private wells.

17. *Section 5.1, last paragraph, page 5-2: An option for active treatment of the off-property plume should be carried through the evaluation, as outlined in the SOW of the Consent Decree.*

Response: See response to comment 16.

18. *Section 5.2: In general, this section or the section preceding requires additional text to provide a detailed description of each of the options being combined into the alternatives. The details of each of the potential actions for the Blackhawk Acres should be included in the off-property alternatives (see page 3-3). The process options within each of the alternatives should be described in detail. What is involved with connecting Blackhawk Acres to municipal water? How will a GMZ be obtained? What is meat by natural attenuation monitoring? Which in-situ treatment process or processes will be selected and what will be the criteria used for the selection? Will additional data be required before a selection can be made? Will enhanced biodegradation, chemical oxidation and/or physical treatment be use? How would oxidation or enhanced biodegradation be accomplished? Without any level of detailed description as to what each alternative includes, how can cost be evaluated?*

The alternatives, as presented, do not provide individual comprehensive choices addressing the contamination (Alternatives 2 and 3 are only partial alternatives, neither of which address the on-property contamination picture as a whole. As a result, only Alternative 4 addresses each aspect of the remediation problems at the site, but this alternative doesn't even provide a definitive idea of how that actual remediation would be accomplished (what will be selected- enhanced biodegradation, oxidation, municipal supply, additional extraction well, etc.?). The only discussion of the effectiveness, implementability and cost of any of these options is provided in 1 or 2 very general statements in Table 4-2. Without a discussion of what each of the options really entails, the evaluation of the screening criteria can not be adequately made.

Response: A more detailed analysis and description will be included in additional sections as part of the feasibility study (FS).

Please contact me if you have questions.

Sincerely,

MONTGOMERY WATSON

Kenneth Quinn
Principal Hydrogeologist

LAS/las/vlr/KJQ
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